Vermont Mental Health Performance Indicator Project

DDMHS, Weeks Building, 103 South Main Street, Waterbury, VT 05671-1601 (802-241-2638)

MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
    Advisory Group and Interested Parties

FROM: John Pandiani and Monica Simon

DATE: October 3, 2003

RE: Arrest Rates and Change in Arrest Rates
    For Adult CMHC and other Medicaid mental health service recipients

A few months ago, Dr. Joe Jacobs (former Medical Director of Vermont Medicaid and the Department of Corrections) requested a comparison of arrest rates for adults who received Medicaid reimbursed mental health services from community mental health centers (CMHC) in Vermont with arrest rates for adults who received Medicaid reimbursed mental health services from non-CMHC mental health service providers in Vermont. Data for this analysis were drawn from the Vermont Medicaid paid claims database and the Vermont Department of Public Safety Incident Based Reporting System.

Recipients of CMHC mental health services were identified on the basis of a CMHC provider type code in conjunction with a Community Rehabilitation and Treatment or Adult Mental Health Outpatient procedure code. Recipients of non-CMHC mental health services were identified on the basis of a provider type indicating the provider was a Psychologist or a master's level Psychologist/Counselor.   All individuals who received these Medicaid mental health services during calendar year 2001 were selected for this analysis. Two criminal justice data sets were used in this analysis. One data set includes records of all arrests of Vermont residents who were arrested during calendar year 2000 (the year before the treatment year). The other data set includes records of all arrests of Vermont residents who were arrested during calendar year 2002 (the year after the treatment year). Because these data sets do not share unique person identifiers, probabilistic population estimation was used to determine the rate at which individuals in our two categories of Medicaid mental health service recipients were arrested during each of the two time periods under examination. In order to compare change in criminal justice involvement for these two groups, the arrest rate for the year before was divided by the arrest rate for the year after treatment to determine a change ratio. A change ratio that is less than 1 indicates a decrease in criminal justice involvement. A change ratio that is greater than 1 indicates an increase in criminal justice involvement. A change ratio that is not significantly different from 1 indicates no change in criminal justice involvement.

As you will see, recipients of CMHC mental health services were significantly more likely to have been arrested during the previous year than recipients of other Medicaid mental health services (11.1% vs. 8.2%, overall). This was true for both men and women (18% vs. 15.2% and 7.6% vs. 5.7%, respectively). This was also true for service recipients in the 18-34 and 35-49 age groups

(13.3% vs. 10.1% and 11.4% vs. 7.5%, respectively) but there was no difference in previous arrest rates for the 50-64 age group.   Young men had the highest arrest rate during the previous year (22.2% for CMHC; 19.9% for other provider), and older women had the lowest (2.1% for CMHC; 2.7% for other providers).

Adult CMHC service recipients experienced no change in overall arrest rate during the period of the study. There was a significant reduction in arrests for men in the 35-49 year age group (from 17.9% to 14.5%) and among 35-49 year olds overall (11.4% to 9.6%). Young adult CMHC service recipients (18-34 overall and women 18-34) experienced an increase in criminal justice involvement during the study period.

Adult recipients of non-CMHC mental health services, however, experienced a significant decrease in overall arrest rate during the period of the study. There were also significant reductions in arrest rates for women overall (from 5.7% to 4.5%), and women in the 35-49 and 50-64 year age groups (from 5.3% to 3.6% and from 2.7% to 1.4%, respectively). A significant decrease in arrest rate for male recipients of non-CMHC mental health services was evident only in the 50-64 year age group (from 7% to 5%). There were also significant reductions in arrests for non-CMHC service recipients in the 35-49 and 50-64 year age groups (from 7.5% to 6% and 3.7-2.3%, respectively). No non-CMHC demographic group experienced an increase in criminal justice involvement during the study period.
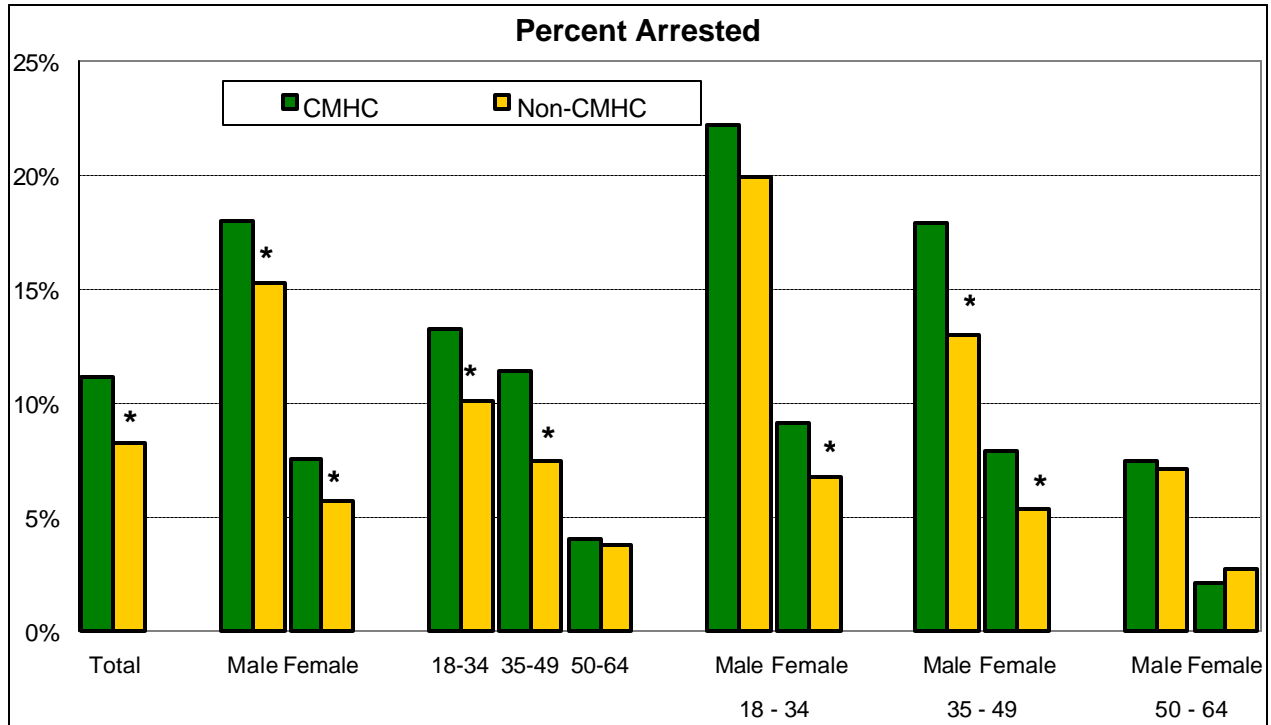
We look forward to your questions, comments and suggestions for further analysis to pip@ddmhs.state.vt.us or 802-241-2638.

Arrest Rates
CY2001 CMHC and Non-CMHC Medicaid Clients
By Age and Gender
Arrested During the Year Before the Treatment Year

Percent Arrested

	Percent Arrested Before Treatment		
	CMHC	Non-CMHC	
Total	11.1% ± 0.6%	8.2% ± 0.8%	*
Male	18.0% ± 1.3%	15.2% ± 2.0%	*
Female	7.6% ± 0.6%	5.7% ± 0.8%	*
18 - 34	13.3% ± 1.1%	10.1% ± 1.4%	*
35 - 49	11.4% + 0.9%	7.5% + 1.0%	*
50 - 64	4.0% ± 0.4%	3.7% ± 0.6%	
18 - 34 Male	22.2% ± 2.5%	19.9% ± 3.8%	
Female	9.1% ± 1.1%	6.8% ± 1.3%	*
35 - 49 Male	17.9% ± 1.9%	12.9% ± 2.4%	*
Female	7.8% + 0.8%	5.3% + 1.1%	*
50 - 64 Male	7.5% ± 1.0%	7.0% ± 1.4%	
Female	2.1% ± 0.4%	2.7% ± 0.6%	

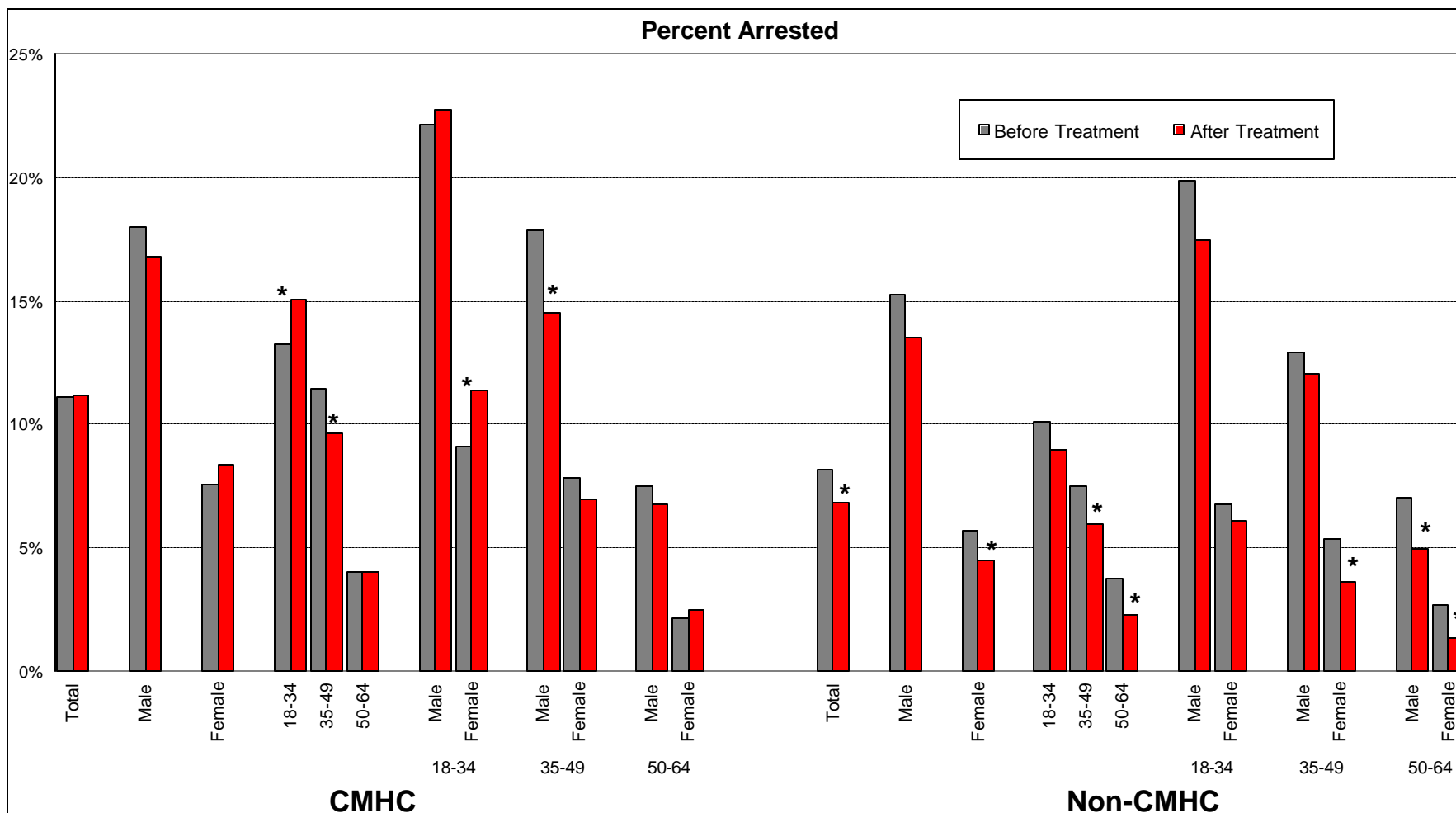*Indicates difference is statistically significantly different at the 0.05 level of significance.

Analysis is based on data provided to DDMHS by community mental health centers, Medicaid paid claims, and the Department of Public Safety. Paid claims for CMHC providers are identified by provider type = 037 (MH Clinic) or 040 (MH/DS Clinic – VHAP); procedure code not equal to Z0... (Children), Z3… (Substance Abuse), or Z4… (Emergency); and age 18 and above. Paid claims for Non-CMHC providers are identified by provider type = 019 (Masters Level Psychologist/Counselor) or 030 (Psychologist) and age 18 and above. Because these databases do not share unique person identifiers, Probabilistic Population Estimation was used to determine the number of individuals shared across data sets (with 95% confidence intervals).

Change in Arrest Rates
CY2001 CMHC and Non-CMHC Medicaid Clients
By Age and Gender
Change Between the Year Before and the Year After the Treatment Year

Percent Arrested

Legend: ■ Before Treatment ■ After Treatment

CMHC — Non-CMHC

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Arrest Rates and Change in Arrest Rates
CY2001 CMHC and Non-CMHC Medicaid Clients
By Age and Gender
Arrests the Year Before and the Year After the Treatment Year

CMHC				
	Average	Percent Arrested		Change
	Number Served	Before Treatment	After Treatment	Ratio
Total	3,295 ± 11	11.1% ± 0.6%	11.2% ± 0.6%	1.01 ± 0.08
Male	1,121 ± 6	18.0% ± 1.3%	16.8% ± 1.3%	0.93 ± 0.10
Female	2,174 ± 10	7.6% ± 0.6%	8.3% ± 0.6%	1.10 ± 0.12
18 - 34	1,487 ± 8	13.3% ± 1.1%	15.0% ± 1.0%	1.13 ± 0.12 *
35 - 49	1,301 ± 7	11.4% ± 0.9%	9.6% ± 0.8%	0.84 ± 0.10 *
50 - 64	507 ± 3	4.0% ± 0.4%	4.0% ± 0.4%	0.99 ± 0.15
18 - 34 Male	477 + 4	22.2% + 2.5%	22.8% + 2.3%	1.03 + 0.16
Female	1,011 ± 7	9.1% ± 1.1%	11.4% ± 1.1%	1.26 ± 0.19 *
35 - 49 Male	463 + 4	17.9% + 1.9%	14.5% + 1.8%	0.81 + 0.13 *
Female	838 ± 6	7.8% ± 0.8%	6.9% ± 0.8%	0.88 ± 0.14
50 - 64 Male	182 ± 2	7.5% ± 1.0%	6.8% ± 1.2%	0.91 ± 0.20
Female	325 ± 3	2.1% ± 0.4%	2.5% ± 0.2%	1.17 ± 0.23

Non-CMHC				
	Average	Percent Arrested		Change
	Number Served	Before Treatment	After Treatment	Ratio
Total	3,064 ± 13	8.2% ± 0.8%	6.9% ± 0.7%	0.84 ± 0.12 *
Male	810 + 5	15.2% + 2.0%	13.5% + 1.8%	0.89 + 0.17
Female	2,254 ± 12	5.7% ± 0.8%	4.5% ± 0.7%	0.79 ± 0.16 *
18 - 34	1,381 ± 9	10.1% ± 1.4%	9.0% ± 1.2%	0.89 ± 0.17
35 - 49	1,298 + 9	7.5% ± 1.0%	6.0% + 1.0%	0.80 + 0.17 *
50 - 64	385 ± 4	3.7% ± 0.6%	2.3% ± 0.4%	0.60 ± 0.14 *
18 - 34 Male	349 ± 4	19.9% ± 3.8%	17.5% ± 3.4%	0.88 ± 0.24
Female	1,032 + 9	6.8% + 1.3%	6.1% + 1.2%	0.90 + 0.25
35 - 49 Male	365 ± 4	12.9% ± 2.4%	12.0% ± 2.4%	0.93 ± 0.25
Female	933 ± 8	5.3% ± 1.1%	3.6% ± 1.0%	0.67 ± 0.23 *
50 - 64 Male	95 ± 1	7.0% ± 1.4%	5.0% ± 1.3%	0.71 ± 0.23 *
Female	290 ± 3	2.7% ± 0.6%	1.4% ± 0.3%	0.51 ± 0.15 *

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